Journal of Human Evolution

Editors

Peter Andrews William Jungers

Associate Editors

Leslie Aiello *London, England*
E. Armstrong *Washington D.C., U.S.A.*
Catherine Badgley *Ann Arbor, U.S.A.*
Ofer Bar-Yosef *Cambridge, U.S.A.*
Neil Chalmers *London, England*
Andrew Chamberlain *Liverpool, England*
Eric Delson *New York, U.S.A.*
Robin Dunbar *London, England*
John Fleagle *Stony Brook, U.S.A.*
Robert Foley *Cambridge, England*
Terry Harrison *New York, U.S.A.*
Francoise Jouffroy *Paris, France*
Richard Kay *Durham, U.S.A.*
Bill Kimbel *Berkeley, U.S.A.*
Leonard Krishtalka *Pittsburgh, U.S.A.*
R. D. E. MacPhee *New York, U.S.A.*
H. M. McHenry *Davis, U.S.A.*
John W. Olsen *Tucson, U.S.A.*
Svante Paabo *Munich, Germany*
Michael Rose *Newark, U.S.A.*
Vincent Sarich *Berkeley, U.S.A.*
Margaret Schoeninger *Madison, U.S.A.*
Brian Shea *Evanston, U.S.A.*
Fred Smith *Tennessee, U.S.A.*
Holly Smith *Ann Arbor, U.S.A.*
Chris Stringer *London, England*
Herbert Thomas *Paris, France*
N. Toth *Bloomington, U.S.A.*
Bernard Vandermeersch *Talence, France*
Carel van Schaik *Durham, U.S.A.*
Steve Ward *Kent, U.S.A.*

Volume 19 1990

Academic Press
Harcourt Brace Jovanovich, Publishers
London Orlando San Diego New York Austin Boston Sydney Tokyo Toronto

RIODICAL
N
81
63

Copyright © 1990 by Academic Press Ltd

ALL RIGHTS RESERVED

No part of this volume may be reproduced in any form, by photostat, microfilm, or any other means, without written permission from the publishers.

Printed in the U.K.

Contents of Volume 19

Number 1/2
February/March 1990

J. G. Fleagle & A. L. Rosenberger	Preface	1
ARTICLES		
B. J. MacFadden	Chronology of Cenozoic primate localities in South America	7
R. Pascual & E. O. Jaureguizar	Evolving climates and mammal faunas in Cenozoic South America	23
J. G. Fleagle	New fossil platyrrhines from the Pinturas Formation, southern Argentina	61
T. M. Bown & C. N. Larriestra	Sedimentary paleoenvironments of fossil platyrrhine localities, Miocene Pinturas Formation, Santa Cruz Province, Argentina	87
M. Dagosto	Models for the origin of the anthropoid postcranium	121
S. M. Ford	Locomotor adaptations of fossil platyrrhines	141
R. F. Kay	The phyletic relationships of extant and fossil Pitheciinae (Platyrrhini, Anthropoidea)	175
A. L. Rosenberger, T. Setoguchi & N. Shigehara	The fossil record of callitrichine primates	209
S. M. Ford	Platyrrhine evolution in the West Indies	237

Number 3
May 1990

ARTICLES		
D. R. Begun, S. Moyá-Sola & M. Kohler	New Miocene hominoid specimens from Can Llobateres (Vallès Penedès, Spain) and their geological and paleoecological context	255
L. Konigsberg, D. Falk, C. Hildebolt, M. Vannier, J. Cheverud & R. C. Helmkamp	External brain morphology in rhesus macaques (*Macaca mulatta*)	269

S. W. Simpson, C. O. Lovejoy & R. S. Meindl — Hominoid dental maturation 285

P. Villa — Torralba and Aridos: elephant exploitation in Middle Pleistocene Spain 299

CURRENT EVENTS

E. L. Simons, L. R. Godfrey, M. Vuillaume-Randriamanantena, P. S. Chatrath & M. Gagnon — Discovery of new giant subfossil lemurs in the Ankarana Mountains of Northern Madagascar 311

P. E. Wheeler — The significance of selective brain cooling in hominids . . 321

M. C. Dean — More on cool heads—Reply to Wheeler 323

Book reviews 327

Number 4/5
June/August 1990

Preface 335

ARTICLES

B. Alpagut — A short history of the excavations at the Miocene site at Paşalar, Turkey 337

P. Andrews & B. Alpagut — Description of the fossiliferous units at Paşalar, Turkey . . 343

E. A. Bestland — Sedimentology and paleopedology of Miocene alluvial deposits at the Paşalar Hominoid site, Western Turkey 363

P. Andrews & A. Ersoy — Taphonomy of the Miocene bone accumulations at Paşalar, Turkey 379

B. Alpagut, P. Andrews & L. Martin — New hominoid specimens from the Middle Miocene site at Paşalar, Turkey 397

L. J. Flynn & L. L. Jacobs — Preliminary analysis of Miocene small mammals from Paşalar, Turkey 423

E. Ünay — *Turkomys pasalarensis* Tobien, its range of variation in the type locality at Paşalar, Turkey 437

E. Ünay — A new species of *Pliospalax* (Rodentia Mammalia) from the Middle Miocene of Paşalar, Turkey 445

Ş. Şen — Middle Miocene lagomorphs from Paşalar, Turkey . . . 455

M. Gürbüz — Preliminary list of Paşalar Carnivora 463

H. Tobien — Proboscidea: a preliminary note 465

A. Forstén — *Anchitherium* from Paşalar, Turkey 471

M. Fortelius — Less common ungulate species from Paşalar, middle Miocene of Anatolia (Turkey) 479

M. Fortelius — Rhinocerotidae from Paşalar, middle Miocene of Anatolia (Turkey) 489

M. Fortelius & R. L. Bernor — A provisional systematic assessment of the Miocene suoidea from Paşalar, Turkey 509

A. W. Gentry — Ruminant artiodactyls of Paşalar, Turkey 529

R. L. Bernor & H. Tobien — The mammalian geochronology and biogeography of Paşalar (Middle Miocene, Turkey) 551

P. Andrews — Palaeoecology of the Miocene fauna from Paşalar, Turkey . 569

CURRENT EVENTS

P. J. Whybrow, A. Hill, W. Y. al-Tikriti & E. A. Hailwood — Late Miocene primate fauna, flora and initial palaeomagnetic data from the Emirate of Abu Dhabi, United Arab Emirates . 583

Books received 589

Number 6/7
September/November 1990

ARTICLES

J. H. Schwartz — *Lufengpithecus* and its potential relationship to an orang-utan clade 591

J. Fooden — The bear macaque, *Macaca arctoides*: a systematic review . . 607

L. E. Duchin — The evolution of articulate speech: comparative anatomy of the oral cavity in *Pan* and *Homo* 687

R. J. Clarke — The Ndutu cranium and the origin of *Homo sapiens* . . . 699

D. L. Gebo, M. Dagasto, A. L. Rosenberger & T. Setoguchi — New platyrrhine tali from La Venta, Colombia . . . 737

CURRENT EVENTS

P. S. Kyauka & P. Ndessokia — A new hominid tooth from Laetoli, Tanzania 747

Number 8
December 1990

ARTICLES

G. Manzi, L. Salvadei & P. Passarello — The Casal de' Pazzi archaic parietal: comparative analysis of new fossil evidence from the late Middle Pleistocene of Rome . 751

J. W. Olsen & R. L. Ciochon — A review of evidence for postulated Middle Pleistocene occupations in Viet Nam 761

G. Bräuer & K. W. Rimbach — Late archaic and modern *Homo sapiens* from Europe, Africa, and Southwest Asia: Craniometric comparisons and phylogenetic implications 789

CURRENT EVENTS

A. Bietti — International Symposium: The fossil man of Monte Circeo: Fifty years of studies on the Neandertals in Latium (19–21 October, 1989) 809

G. G. Pope & R. L. Bernor — A new Early Miocene Fauna from northern Thailand . . 811

K. C. Beard — Do we need the newly proposed order Proprimates? . . . 817

P. D. Gingerich — Mammalian order Proprimates—response to Beard . . . 821

Index

Alpagut, B. A short history of the excavations at the Miocene site at Paşalar, Turkey 337

Alpagut, B., Andrews, P. & Martin, L. New hominoid specimens from the Middle Miocene site at Paşalar, Turkey 397

Alpagut, B., see Andrews, P.

Al-Tikriti, W. Y., see Whybrow, P. J.

Andrews, P. Palaeoecology of the Miocene fauna from Paşalar, Turkey . 569

Andrews, P. & Alpagut, B. Description of the fossiliferous units at Paşalar, Turkey 343

Andrews, P. & Ersoy, A. Taphonomy of the Miocene bone accumulations at Paşalar, Turkey. 379

Andrews, P., see Alpagut, B.

Beard, K. C. Do we need the newly proposed order Proprimates? . . . 817

Begun, D. R., Moyá-Sola, S. & Kohler, M. New Miocene hominoid specimens from Can Llobateres (Vallès Penedès, Spain) and their geological and paleo-ecological context 255

Bernor, R. L. & Tobien, H. The mammalian geochronology and biogeography of Paşalar (Middle Miocene, Turkey) 551

Bernor, R. L., see Fortelius, M.

Bernor, R. L., see Pope, G. G.

Bestland, E. A. Sedimentology and paleopedology of Miocene alluvial deposits at the Paşalar Hominoid site, Western Turkey 363

Bietti, A. International Symposium: The fossil man of Monte Circeo: Fifty years of studies on the Neandertals in Latium (19–21 October, 1989) . . 809

Bown, T. M. & Larriestra, C. N. Sedimentary paleoenvironments of fossil platyrrhine localities, Miocene Pinturas Formation, Santa Cruz Province, Argentina 87

Bräuer, G. & Rimbach, K. W. Late archaic and modern *Homo sapiens* from Europe, Africa and Southwest Asia: craniometric comparisons and phylogenetic implications 789

Chatrath, P. S., see Simons, E. L.

Cheverud, J., see Konigsberg, L.

Ciochon, R. L., see Olsen, J. W.

Clarke, R. J. The Ndutu cranium and the origin of *Homo sapiens* . . . 699

Dagosto, M. Models for the origin of the anthropoid postcranium . . 121

Dagosto, M., see Gebo, D. L.

Dean, M. C. More on cool heads—Reply to Wheeler 323

Duchin, L. E. The evolution of articulate speech: comparative anatomy of the oral cavity in *Pan* and *Homo* 687

Ersoy, A., see Andrews, P.

Falk, D., see Konigsberg, L.

Fleagle, J. G. New fossil platyrrhines from the Pinturas Formation, southern Argentina 61

Fleagle, J. G. & Rosenberger, A. L. Preface 1

Flynn, L. J. & Jacobs, L. L. Preliminary analysis of Miocene small mammals from Paşalar, Turkey 423

Fooden, J. The bear macaque, *Macaca arctoides*: a systematic review . . 607

Ford, S. M. Locomotor adaptations of fossil platyrrhines 141

Ford, S. M. Platyrrhine evolution in the West Indies 237

Forstén, A. *Anchitherium* from Paşalar, Turkey 471

Fortelius, M. Less common ungulate species from Paşalar, middle Miocene of Anatolia (Turkey) 479

Fortelius, M. Rhinocerotidae from Paşalar, middle Miocene of Anatolia (Turkey) 489

Fortelius, M. & Bernor, R. L. A provisional systematic assessment of the Miocene suoidea from Paşalar, Turkey 509

Gagnon, M., see Simons, E. L.

Gebo, D. L., Dagosto, M., Rosenberger, A. L. & Setoguchi, T. New platyrrhine tali from La Venta, Colombia 737

Gentry, A. W. Ruminant artiodactyls of Paşalar, Turkey 529

Gingerich, P. D. Mammalian order Proprimates—response to Beard . . 821

Godfrey, L. R., see Simons, E. L.

Gürbüz, M. Preliminary list of Paşalar Carnivora 463

Hailwood, E. A., see Whybrow, P. J.

Helmkamp, R. C., see Konigsberg, L.

Hildebolt, C., see Konigsberg, L.

Hill, A., see Whybrow, P. J.

Jacobs, L. L., see Flynn, L. J.

Jaureguizar, E. O., see Pascual, R.

Kay, R. F. The phyletic relationships of extant and fossil Pitheciinae (Platyrrhini, Anthropoidea) 175

Kohler, M., see Begun, D. R.

Konigsberg, L., Falk, D., Hildebolt, C., Vannier, M., Cheverud, J. & Helmkamp, R. C. External brain morphology in rhesus macaques (*Macaca mulatta*) 269

Kyauka, P. S. & Ndessokia, P. A new hominid tooth from Laetoli, Tanzania 747

Larriestra, C. N., see Bown, T. M.

Lovejoy, C. O., see Simpson, S. W.

MacFadden, B. J. Chronology of Cenozoic primate localities in South America 7

Manzi, G., Salvadei, L. & Passarello, P. The Casal de' Pazzi archaic parietal: comparative analysis of new fossil evidence from the late Middle Pleistocene of Rome 751

Martin, L., see Alpagut, B.

Meindl, R. S., see Simpson, S. W.

Moyá-Sola, S., see Begun, D. R.

Ndessokia, P., see Kyauka, P. S.

Olsen, J. W. & Ciochon, R. L. A review of evidence for postulated Middle Pleistocene occupations in Viet Nam 761

Pascual, R. & Jaureguizar, E. O. Evolving climates and mammal faunas in Cenozoic South America 23

Passarello, P., see Manzi, G.

Pope, G. G. & Bernor, R. L. A new Early Miocene Fauna from northern Thailand 811

Rimbach, K. W., see Bräuer, G.

Rosenberger, A. L., Setoguchi, T. & Shigehara, N. The fossil record of callitrichine primates 209

Rosenberger, A. L., see Fleagle, J. G.

Rosenberger, A. L., see Gebo, D. L.

Salvadei, L., see Manzi, G.

Schwartz, J. H. *Lufengpithecus* and its potential relationship to an orang-utan clade. 591

Şen, Ş. Middle Miocene lagomorphs from Paşalar, Turkey 455

Setoguchi, T., see Gebo, D. L.

Setoguchi, T., see Rosenberger, A. L.

Shigehara, N., see Rosenberger, A. L.

Simons, E. L., Godfrey, L. R., Vuillaume-Randriamanantena, M., Chatrath, P. S. & Gagnon, M. Discovery of new giant subfossil lemurs in the Ankarana Mountains of Northern Madagascar 311

Simpson, S. W., Lovejoy, C. O. & Meindl, R. S. Hominoid dental maturation 285

Tobien, H. Proboscidea: a preliminary note 465

Tobien, H., see Bernor, R. L.

Ünay, E. A new species of *Pliospalax* (Rodentia, Mammalia) from the Middle Miocene of Paşalar, Turkey 445

Ünay, E. *Turkomys pasalarensis* Tobien, its range of variation in the type locality at Paşalar, Turkey 437

Vannier, M., see Konigsberg, L.

Villa, P. Torralba and Aridos: elephant exploitation in Middle Pleistocene Spain 299

Vuillaume-Randriamanantena, M., see Simons, E. L.

Wheeler, P. E. The significance of selective brain cooling in hominids . . 321

Whybrow, P. J., Hill, A., Al-Tikriti, W. Y. & Hailwood, E. A. Late Miocene primate fauna, flora and initial palaeomagnetic data from the Emirate of Abu Dhabi, United Arab Emirates 583